DETAILED ACTION

a. This action is taken to response to amendments and remarks filed on 10/2/2009.

b. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn.

c. Claims 9-11, 13, 15-17 and 19 are pending in this Office Action. Claims 12, 14, 18, and 20 are canceled.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 9 recites, "a first step which includes sending a read command... a second step which includes sending from said central system a first data block containing said operation in response to said read command…wherein said first step is performed using a first directional link, wherein said second step is performed using a second directional link having a direction different from said first directional link…wherein said first directional link is an uplink from said satellite system to said central system, and wherein said second directional link is a downlink

from said central system to said satellite system" The relevant discussion appears in the specification at abstract, paragraph [0012], [0013], where it states:

> Abstract:
>
> in the satellite system (30), a coupler (21) that sends through the link (17) to the control card (9) at least one read command to which the control card (9) responds by sending said data block or blocks through the link (17) to the coupler (21).
>
> [0012] The control card 9 is linked to the satellite system 30 by a so-called downlink 17 (D) and by a so-called uplink 20 (U). Each of the links 17 and 20 is embodied by a standard fast link such as "Ultra Wide SCSI" at 40 Mbps. A coupler 21 and a coupler 29 are connected to the bus 28 in the satellite system 30 so as to make the satellite system 30 the master in each of the links 17 and 20. Standard drivers, hosted in memory 27, control the couplers 21 and 29.
>
> [0013] The control card 9 is declared to be in slave mode in each of the links 17 and 20. Thus, the satellite system 30 sends read commands through the link 17 via the coupler 21. The satellite system 30 sends write commands and blocks to be written through the link 20 via the coupler 29.

Based on the specification, the read command is sent from the satellite system to the center system through downlink (17), not through uplink as claimed. In addition, the first data block containing said operation in response to said read command is also sent through downlink (17) from central system to said satellite system, i.e. using the same directional link. Therefore, the cited limitation as noted above is not supported in the Specification as filed. In addition, applicant indicated that the support is provided in paragraphs [0012], [0093], and [0096], unfortunately, the Examiner can not locate paragraph [0096] in the instant specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 9-11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chamoff et al. (US Patent, 4,266,271, hereinafter Chamoff) in view of Sugiyama et al. (US Patent 5,313,664, hereinafter Sugiyama), and further in view of Janssens (US Patent 5,239,543).

As to claim 9, Chamoff discloses a method for exchanging information between a central system and a satellite system (Figs. 1, 22, media terminal [central system] and satellite terminal), which executes at least one operation of the central system, said method comprising:

a first step which includes sending a read command identified by a first logical unit number (Fig. 16, item 334, col. 9, lines 45-49, col. 27, lines 32-35, col. 10, lines 47-49, col. 19, line 65 to col. 20, line 2) but does not explicitly discloses from the satellite system to the central system.

Sugiyama discloses not only sending a read command but also from the satellite system to the central system (Fig. 3, items, 54, 60, col. 5, line 58 to col. 6, line 28, a request is made from a terminal 24, 26 or 30 [satellite system] to the main file device 12).

Therefore, it would have been obvious to one skilled in the art at the time of the present invention to modify the method of Chamoff to include sending request from satellite terminal to the main file device as taught by Sugiyama in order to retrieve and update the master file (Sugiyama, col. 5, lines 64-65).

Chamoff in view of Sugiyama further discloses:

a second step which includes sending from said central system a first data block containing said operation in response to said read command (Fig. 17, item 356, Fig. 18, item 368), wherein said first data block includes an operation control block and a corresponding operation data block each associated with said operation (Fig. 23, col. 23, lines 3-9);

a third step which includes receiving said first data block in the satellite system in order to process said operation (Fig. 6, 140, Fig. 13, 186, 188, col. 14, lines 22-35), said second step and said third step being performed concomitantly (Figs. 17-18, col. 17, line 45 to col. 18, line 15),

transmitting, by said satellite system, said operation control block to a control portion of a peripheral coupler of the satellite system (Figs. 6, 22, 35, col. 11, lines 9-31),

transmitting, by said satellite system, said operation data block, to a data portion of the peripheral coupler of the satellite system (Figs. 6, 22, 35, col. 11, lines 9-31, col. 45, lines 34-37),

wherein said operation control block and said operation data block are used by said satellite system to execute said operation using a peripheral subsystem operably coupled to said satellite system via said peripheral coupler (Figs. 6, 22, 35, col. 11, lines 9-31, col. 45, lines 34-37).

Chamoff in view of Sugiyama discloses bidirectional link are used for read/write (Figs. 7-7, col. 12, lines 1-14) but does not explicitly discloses the read directional link is different from the write directional link.

However, Janssens discloses:

wherein said first step is performed using a first directional link (Figs. 1-2, uplink, col. 1, lines 16-18),

wherein said second step is performed using a second directional link having a direction different from said first directional link (Fig. 1-2, downlink, col. 2, lines 2-9),

wherein said satellite system is master for the first and second directional link (Sugiyama, Fig. 3, Janssens, col. 10, lines 59-61, request is sent from station, i.e. master),

wherein said first directional link is an uplink from said satellite system to said central system (Fig. 1, uplink is from stations to CPU), and

wherein said second directional link is a downlink from said central system to said satellite system (Fig. 1, downlink is from CPU to stations).

It would have been obvious to one skilled in the art at the time of the present invention to modify the method of Chamoff in view of Sugiyama to include different uplink and downlink for communication between central process unit (base unit) and stations as taught by Janssens in order to optimum the communication traffic demands.

As to claim 10, Chamoff in view of Sugiyama and Janssens discloses the method according to claim 9, further comprising:

sending a write command from the satellite system to the central system identified by a second logical unit number and a second data block resulting from said operation (Fig. 16, 338, col. 9, lines 45-49, col. 27, lines 32-35).

As to claim 11, Chamoff in view of Sugiyama and Janssens discloses the method according to claim 9, further comprising:

sending a read command identified by a third logical unit number from the satellite system to the central system (Chamoff, Fig. 16, item 334, col. 9, lines 45-49, col. 27, lines 32-35, col. 10, lines 47-49, col. 19, line 65 to col. 20, line 2, Sugiyama, Fig. 3, items, 54, 60, col. 5, line 58 to col. 6, line 28);

sending from the central system, in response to said read command, a third data block containing said operation (Chamoff, Fig. 17, item 356, Fig. 18, item 368); and

receiving, in the satellite system, said third data block in order to process the operation in said third data block, said seventh step and said second step being performed concomitantly (Chamoff, Figs. 17-18, col. 17, line 45 to col. 18, line 15).

As to claim 13, Chamoff in view of Sugiyama and Janssens discloses the method according to claim 11, further comprising: sending a write command identified by a fourth

logical unit number from the satellite system to the central system and a fourth data block resulting from said operation (Fig. 16, 338, col. 9, lines 45-49, col. 27, lines 32-35).

Claims 15-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chamoff, Sugiyama and Janssens as applied to claim 9 above, and further in view of Fukunaga et al. (US Publish 2003/0202539, hereinafter Fukunaga).

As to claim 15-17, and 19, Chamoff in view of Sugiyama and Janssens discloses the method according to claims 9-11, and 13, wherein said first data block includes:

a first field containing commands or data of said operation (Fig. 23); and

a header containing a second field for identifying a logical channel corresponding to said operation(Fig. 23, ADDR/DSTD) but does not explicitly disclose a third field for indicating a length of the first field.

Fukunaga discloses a third field for indicating a length of the first field (Fig. 24, data_length).

It would have been obvious to one skilled in the art at the time of the present invention to modify the method of Chamoff in view of Sugiyama and Janssens to include data length in the data packet in order to indentify the amount of data transferred.

Response to Amendment and Remarks

Applicant's remarks and arguments presented on October 2, 2009 have been fully considered, however, they are directed to new limitations that have been addressed in the citation of the detailed office action as discussed above.

Conclusion

Applicant's amendment necessitated the new grounds of rejection presented in this Office Action. Accordingly, **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shew-Fen Lin whose telephone number is 571-272-2672. The examiner can normally be reached on 8:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shew-Fen Lin /S. L./
Examiner, Art Unit 2166
January 9, 2010

/Hosain T Alam/

Supervisory Patent Examiner, Art Unit 2166